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10/027,457	12/21/2001	Susan M. Coatney	112056-0007	1514
24267	7590	02/09/2005	EXAMINER	
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			BAYARD, DJENANE M	
			ART UNIT	PAPER NUMBER
			2141	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/027,457	Applicant(s) COATNEY ET AL.	
	Examiner Djenane M Bayard	Art Unit 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/03, 5/03, 3/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2003/ 0061491 to Jaskiewicz et al.

a. As per claim 1, Jaskiewicz et al teaches a network device to claim ownership of a disk in a network storage system comprising the steps of: setting a first ownership attribute on the disk to a state of ownership by network device; and setting a second ownership attribute on the disk to a state of ownership by network device (See page 3, paragraph [0020]).

b. As per claim 3, Jaskiewicz et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein one of the first ownership attribute and the second ownership attribute further comprises ownership information written on a predetermined area of the disk (See page 3, paragraph [0020]).

c. As per claim 4, Jaskiewicz et al teaches the claimed invention as described above.

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Furthermore, Jaskiewicz et al teaches wherein the ownership information further comprises a serial number of the network device (See page 3, paragraph [00251]).

d. As per claim 5, Jaskiewicz et al teaches the claimed invention as described above.

Furthermore, Jaskiewicz et al teaches wherein the network device comprises a file server (See page 2, paragraph [0015]).

3. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Application No. 2003/0093501 to Carlson et al.

a. As per claim 20, Carlson et al teaches a network storage system comprising: one or more switches interconnected to form a switching fabric; a plurality of disks, each of the disks connected to at least one of the switches (See page 2, paragraph [0039]); and one or more network devices, interconnected with the switching fabric, each of the network devices being adapted to own a predetermined set of disks of the plurality of disks (See page 8, paragraph [0082], The panel displays a slider that the administrator may control to indicate the amount of storage space to allocate to the host).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 6-8, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/ 0061491 to Jaskiewicz et al in view of U.S. Patent application No. 2004/0230698 to Oeda et al.

a. As per claim 2, Jaskiewicz et al teaches the claimed invention as described above. However, Jaskiewicz et al failed to teach wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag.

Oeda et al teaches wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag (See page 2, paragraph [0031] and page 3, paragraph [0034]).

It would have been obvious to one with ordinary skill in the art at the time invention was made to incorporate wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag as taught by Oeda et al in the claimed invention of Jaskiewicz et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

b. As per claims 6 and 27, Jaskiewicz et al teaches a method of claiming ownership of a disk by a network device in a network storage system comprising the steps of: writing ownership information to a predetermined area of the disk; However, Jaskiewicz et al failed to teach setting

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a small computer system interface level 3 persistent reservation tag to a state of network device ownership.

Oeda et al teaches setting a small computer system interface level 3 persistent reservation tag to a state of network device ownership (See page 2, paragraph [0031] and page 3, paragraph [0034]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate setting a small computer system interface level 3 persistent reservation tag to a state of network device ownership as taught by Oeda et al in the claimed invention of Jaskiewicz et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

c. As per claim 7, Jaskiewicz et al in view of Oeda et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein the ownership information further comprises a serial number of a network device (See page 3, paragraph [0021]).

d. As per claim 8, Jaskiewicz et al in view of Oeda et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein the network device comprises a file server (See page 2, paragraph [0015]).

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6. Claims 9-10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/ 0061491 to Jaskiewicz et al in view of U.S. Patent Application No. 2003/0093501 to Carlson et al.

a. As per claim 9 and 17, Jaskiewicz et al teaches A network storage system comprising: a plurality of network devices; and a plurality of disks having a first ownership attribute and a second ownership attribute (See page 3, paragraph [0020]). However, Jaskiewicz et al failed to teach wherein one or more switches, each network device connected to at least one of the one or more switch; each disk connected to at least one of the plurality of switches.

Carlson et al teaches a method, system and program for configuring system resources. Furthermore, Carlson et al teaches wherein one or more switches, each network device connected to at least one of the one or more switch; each disk connected to at least one of the plurality of switches (See page 2, paragraph [0039]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein one or more switches, each network device connected to at least one of the one or more switch; each disk connected to at least one of the plurality of switches as taught by Carlson et al in view of Jaskiewicz et al in order to interconnect the attached host devices 9see page 2, paragraph [0039]).

b. As per claim 10, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein the first ownership attribute further comprises ownership information written on a predetermined area of the disk (See page

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3, paragraph [0021]).

7. Claims 11-16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/ 0061491 to Jaskiewicz et al in view of U.S. Patent Application No. 2003/0093501 to Carlson et al as applied to claim 9 above, and further in view of U.S. Patent application No. 2004/0230698 to Oeda et al.

a. As per claim 11, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. However, Jaskiewicz et al in view of Carlson et al failed to teach wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag.

Oeda et al teaches wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag (See page 2, paragraph [0031] and page 3, paragraph [0034]).

It would have been obvious to one with ordinary skill in the art at the time invention was made to incorporate wherein one of the first ownership attribute and the second ownership attribute further comprises a small computer system interface level 3 persistent reservation tag as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view of Carlson et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

b. As per claim 12, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as

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described above. However, Jaskiewicz et al in view of Carlson et al failed to teach wherein each disk that is owned by the network device has the small computer system interface level 3 persistent reservation set such that only the network device may write to the disk.

Oeda et al teaches wherein each disk that is owned by the network device has the small computer system interface level 3 persistent reservation set such that only the network device may write to the disk (See page 5, paragraph [0063]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein each disk that is owned by the network device has the small computer system interface level 3 persistent reservation set such that only the network device may write to the disk as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view Carlson et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

c. As per claim 13, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein the ownership information further comprises of a serial number of the network device that owns that particular disk (See page 3, paragraph [0021]).

d. As per claim 14, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. However, Jaskiewicz et al failed to teach wherein each of the plurality of file servers can read data from each of the plurality of disks.

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Oeda et al teaches wherein each of the plurality of file servers can read data from each of the plurality of disks (See page 5, paragraph [0063]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein each of the plurality of file servers can read data from each of the plurality of disks as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view of Carlson in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

e. As per claim 15, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. However, Jaskiewicz et al in view of Carlson et al failed to teach wherein only a network device that owns one of the plurality of disks can write data to the one disk.

Oeda et al teaches wherein only a network device that owns one of the plurality of disks can write data to the one disk (See page 5, paragraph [0063]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein only a network device that owns one of the plurality of disks can write data to the one disk as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view of Carlson in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

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f. As per claims 16 and 19, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. Furthermore, Jaskiewicz et al teaches wherein the network devices comprise file servers (See page 2, paragraph [0015]).

g. As per claim 18, Jaskiewicz et al in view of Carlson et al teaches the claimed invention as described above. However, Jaskiewicz et al failed to teach wherein the means for claiming ownership further comprises: means for writing ownership information to a predetermined area of a disk; and means for setting a small computer system interface level 3 persistent reservation on a disk.

Oeda et al teaches wherein the means for claiming ownership further comprises: means for writing ownership information to a predetermined area of a disk (See page 5, paragraph [0063]); and means for setting a small computer system interface level 3 persistent reservation on a disk (See pages 2-3, paragraph [0031 and 0034]):

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the means for claiming ownership further comprises: means for writing ownership information to a predetermined area of a disk; and means for setting a small computer system interface level 3 persistent reservation on a disk as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view of Carlson et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

8. Claims 21-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/0093501 to Carlson et al in view of U.S. Patent Application No. 2003/0061491 to Jaskiewicz et al.

a. As per claim 21, Carlson et al teaches the claimed invention as described above. However, Carlson et al failed to teach wherein the plurality of disks further comprises a first ownership attribute and a second ownership attribute.

Jaskiewicz et al teaches a system and method for the allocation of network storage. Furthermore, Jaskiewicz et al teaches wherein the plurality of disks further comprises a first ownership attribute and a second ownership attribute (See page 3, paragraph [0020]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the plurality of disks further comprises a first ownership attribute and a second ownership attribute as taught by Jaskiewicz et al in order to give the host device permission to write and read data to and from the storage location the right device id (See page 3, paragraph [0022]).

b. AS per claim 22, Carlson et al teaches the claimed invention as described above. However, Carlson et al failed to teach wherein the first ownership attribute is ownership information written to a predetermined area of each of the disks.

Jaskiewicz et al teaches wherein the first ownership attribute is ownership information written to a predetermined area of each of the disks (See page 3, paragraph [0020]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the first ownership attribute is ownership information written to a predetermined area of each of the disks as taught by Jaskiewicz et al in the claimed invention of Carlson et al in order to give the host device permission to write and read data to and from the storage location the right device id (See page 3, paragraph [0022]).

c. As per claim 23, Carlson et al teaches the claimed invention as described above. However, Carlson et al failed to teach wherein the ownership information further comprises a serial number of one of the one or more network devices.

Jaskiewicz et al teaches wherein the ownership information further comprises a serial number of one of the one or more network devices (See page 3, paragraph [0021]).

It would have been obvious to one with ordinary skill in the art at the invention was made to incorporate wherein the ownership information further comprises a serial number of one of the one or more network devices as taught by Jaskiewicz et al in the claimed invention of Carlson et al in order to give the host device permission to write and read data to and from the storage location the right device id (See page 3, paragraph [0022]).

d. As per claim 25, Carlson et al teaches the claimed invention as described above. However, Carlson et al failed to teach wherein each of the network devices further comprises a disk ownership table, the disk ownership table containing ownership data for each of the disks.

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Jaskiewicz et al teaches wherein each of the network devices further comprises a disk ownership table, the disk ownership table containing ownership data for each of the disks (See page 3, paragraph [0022]).

It would have been obvious to one with ordinary skill in the art at the invention was made to incorporate wherein each of the network devices further comprises a disk ownership table, the disk ownership table containing ownership data for each of the disks as taught by Jaskiewicz et al in the claimed invention of Carlson et al in order to give the host device permission to write and read data to and from the storage location the right device id (See page 3, paragraph [0022]).

e. As per claim 26, Carlson et al teaches the claimed invention as described above.

However, Carlson et al failed to teach wherein the ownership table further comprises a world wide name for each of the disks, the world wide name being used for identification of each of the disks.

Jaskiewicz et al teaches wherein the ownership table further comprises a world wide name for each of the disks, the world wide name being used for identification of each of the disks (See page 3, paragraph [0021]).

It would have been obvious to one with ordinary skill in the art at the invention was made to incorporate wherein the ownership table further comprises a world wide name for each of the disks, the world wide name being used for identification of each of the disks as taught by Jaskiewicz et al in the claimed invention of Carlson et al in order to give the host

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device permission to write and read data to and from the storage location the right device id
(See page 3, paragraph [0022]).

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/0093501 to Carlson et al in view of U.S. Patent Application No. 2003/0061491 to Jaskiewicz et al as applied to claim 21 above, and further in view of U.S. patent No. 2004/0230698 to Oeda et al.

a. As per claim 24, Carlson et al in view of Jaskiewicz et al teaches the claimed invention as described above. However, Carlson et al in view of Jaskiewicz et al failed to teach wherein the second ownership information is a small computer system interface level 3 persistent reservation.

Oeda et al teaches wherein the second ownership information is a small computer system interface level 3 persistent reservation (See page 2, paragraph [0031] and page 3, paragraph [0034]).

It would have been obvious to one with ordinary skill in the art at the invention was made to incorporate wherein the second ownership information is a small computer system interface level 3 persistent reservation as taught by Oeda et al in the claimed invention of Jaskiewicz et al in view of Carlson et al in order for the SCSI control to responds to the request of the host computer and to prepare for subsequently accepting a command form the host computer (See page 3, paragraph [0033]).

Conclusion

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,658,587 to Pramanick et al teaches an emulation of persistent group reservations.

U.S. Patent No. 6,622,163 to Tawill et al teaches a system and method for managing storage resources in a clustered computing environment.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Djenane M Bayard whose telephone number is (571) 272-3878. The examiner can normally be reached on Monday- Friday 5:30 AM- 3:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Djenane Bayard

Patent Examiner



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER